



No. CCCLII.

SATURDAY, NOVEMBER 3, 1849.

**I** ANY of the farmsteads erected in the present day are defective and wasteful, as well as inelegant, the direction of such constructions being too often confided to men quite unfit for the task. We would urge upon proprietors and farmers the pressing necessity which has arisen for greater attention to this and every other matter affecting the profitable working of land. They must not be contented with doing what their fathers have done if their sons can do better. Let them not be afraid of what is new, or be led to disregard the teaching of science; let them adopt the best principles of construction; avail themselves of every local advantage; and, in order that they may do this, take good advice early. Architects themselves, being comparatively seldom applied to on such matters, have not turned their attention generally to them, and may usefully think a little more on the subject than they appear to have done in two or three instances which have lately come under our notice.

Amongst the books recently published, now lying on our table, is one treating of this class of structures,—“*Essays on the Construction of Farm Buildings and Labourers' Cottages*,” by Mr. G. A. Dean,\* which, without professing to give much that is positively new, will be found to contain much useful information. It comprises plans of three farms, elevations and sections of farm buildings, rick frame, cattle-boxes, isometrical views of the farms, and three sets of plans for labourers' cottages, with specifications and general estimates.

Convenience of arrangement, economy of material and space, ventilation, good drainage, and a facility of obtaining wholesome water, are the chief points, says the author, to be considered in designing farm buildings. “Farmers pay largely for labour; it is, therefore, essential to economize this item in every manner possible; and much is to be effected by having a good arrangement in the homestead, particularly of the cattle sheds.” The house should be placed where the farmer can have a good view of the other buildings. The position of the house is of importance: where “practicable it should be on the south side of a hill, and as nearly central as possible with the arable land. This position gives great facility for manuring the soil, carting home the produce, and performing the various farming operations in the most economical manner. Railroads having become the highways of England, they should be made serviceable by erecting the homestead as near to them as possible. Several farmers, whose lands abut upon railways, have already made, or are making, tramways to them from their farm-yards, for the purpose of conveying their produce to market, and for bringing home manure.”

To the plan of covering the entire area of the farmstead with buildings he objects:—

“It appears to be bad in principle and costly in construction; as thus, when the roofs are

several, and join, valley-gutters must be formed; these must, or should be, of lead, which is expensive. Some of the roofs will also be higher than others. Under such an arrangement of sheds, the heat from its large expanse of roofs must be very great during the summer months; neither can any convenient mode of ventilation be adopted: besides, horses require a different temperature from oxen; the latter, while fattening, should be kept very quiet, which cannot be the case here, as they will be continually disturbed by workmen feeding them, by horses coming in from and going out to their work, and by the carters who attend them.”

As to cattle sheds, he says:—

“The fundamental principle by which an architect should be guided in forming sheds for cattle, is their size and form, the latter being, more or less, wedge-shaped; thus:—a moderate-sized horse is about 8 feet long, 6 feet 6 inches high to the top of the head, 2 feet broad behind, and 10 inches across the head. A bullock, about 7 feet 6 inches in length, 5 feet in height, 2 feet 6 inches broad at the hind quarters, and about the same across the horns (although the latter dimensions depend upon the breed of the animal). Sheep are on the average 3 feet 6 inches long, 1 foot 8 inches across the hind quarters, and about 12 inches at the head, allowing for the horns. Swine are about the same size as sheep, varying like them according to the breed. From these data buildings may be erected in the most economical and commodious manner, especially when the sheds are to be circular. *More loose cattle* can be fed in a circular shed than in one of any other form, and may be divided to suit circumstances. The proper radius for the inner circle is 54 feet.”

Practically, nevertheless, we are disposed to give the preference to the parallelogram.

Speaking of roof coverings he gives the following memorandum:—

“The cost of a square of 100 feet super. of thatch is about 2*l.* 5*s.*; plain tiles, 1*l.* 18*s.*; pantiles, 1*l.* 8*s.*; slate, 1*l.* 5*s.*; felt, 14*s.*; galvanized iron, not corrugated, 2*l.* 14*s.*; if corrugated, 8*s.* extra.”

These prices, however, would be varied by locality.

The barn, being generally the highest building in the farmstead, he would place on the north side of the yard, thus giving shelter from the cold winds, and “as a great portion of the food consumed by live stock is there prepared, the cattle-sheds and stables should be contiguous, which will save much labour in the carrying of fodder to and fro. The same reasons should determine the site of the granary, which should be near, if not immediately adjoining. In the barn there should be two bays for the storing of unthrashed corn or straw, with a thrashing-floor in the centre. The thrashing-floor being thus placed, waggons and carts may be conveniently brought in to unload during harvest, or from the ricks. The bays should be sufficiently capacious to hold the contents of a moderately sized rick, although it is desirable to make them as small as possible, on account of the cost of erection.”

A steam engine might be profitably fitted up on many farms:—“The application of steam power on farms is yet in its infancy; and it is objected to by many, that for the purpose of small farms, it is unnecessary and expensive,—but on those consisting of 800 to 1,000 acres or upwards, it is recommended. The number of operations that can be so readily performed at one time with the aid of proper machinery—the great dispatch—the amount of work that can be accomplished—and the small cost of the sustaining power, being only that of a few bushels of coals per diem, are facts too important not to attract the attention of every scientific farmer.”

The remarks on labourers' cottages are sensible.

In awarding general commendation to Mr. Dean's volume as a very useful production, we

must not be considered as endorsing the taste displayed in the external adornments of the buildings; for example, in the “bird's-eye view of plate 9.” Should a second edition be required, he should cancel this plate, if he would maintain his right to the title of “architect.”

The improvement of labourers' cottages has recently received a fresh impulse from the Duke of Bedford. His Grace had been erecting cottages on his own estate, and forwarded plans of them to the Royal Agricultural Society, with a letter to Lord Chichester, which appears to have had good effect in several quarters. The Duke said wisely:—“To improve the dwellings of the labouring class, and afford them the means of greater cleanliness, health, and comfort, in their own homes, to extend education, and thus raise the social and moral habits of those most valuable members of the community, are among the first duties, and ought to be among the truest pleasures, of every landlord. While he thus cares for those whom Providence has committed to his charge, he will teach them, that reliance on the exertion of the faculties with which they are endowed, is the surest way to their own independence and the well-being of their families.”

At Tavistock, for some time past, the labouring population has been miserably crowded, and this being represented to the Duke of Bedford, he has commenced the erection of 64 cottages, on plans prepared by Mr. Jones, his resident surveyor there. These are to be in detached blocks, varying from four to eight in a block. Each cottage is to consist of a living room or kitchen, 14 feet by 11 feet 3 inches; washhouse, or scullery, with a furnace, 9 feet 8 inches, by 7 feet 10 inches, and a pantry 7 feet 10 inches, by 3 feet 6 inches, on the ground floor; and a bedroom with fireplace, 14 feet by 8 feet 4 inches, and two other sleeping apartments, 11 feet 6 inches by 7 feet, and 9 feet by 7 feet, on the chamber story. The rent is to be 1*s.* 6*d.* per week, which would scarcely pay as a mere money speculation. It is however as much as an agricultural labourer can possibly afford; and what is to be desired is a mode of building by which a healthful and convenient habitation can be erected for him at such a cost as this sum would be a fair return for. Until this be the case, the amelioration will not be general.

At the last meeting of the Northampton Architectural Society, the Rev. T. James, in the course of a discussion on labourers' cottages, which followed a paper read by him on the subject, said, that cottage building could never in direct payment give the most moderate return for the outlay which a capitalist might fairly in other cases expect. That the landed proprietor must be content to look for his return from improved cottages just (only in a higher sense, and, in a more direct way) as he does from improved farm-buildings or farm-houses, viz., in the general and permanent amelioration of his estate thereby.

We think differently, and look for those improvements which shall make a fair return quite possible. In the course of his paper, Mr. James very properly urged the importance of attending to the external character of the Cottage as well as internal arrangement. The speaker said:—

“In its moral and social relations, perhaps more widely extended and influential than any class of buildings after the temples of the Most High, and even aesthetically (to use an ugly word from Germany), I see not why it should not be worthy the regard of the highest architect. Whatever pleasure we derive from

\* Published by F. H. Smith, Stratford; Simpkin and Marshall, London, E.C.